



Talking points- nuclear waste and climate change

The following comments address the 2013 Waste Confidence Generic Environmental Impact Statement, Draft NUREG-2157, <http://pbadupws.nrc.gov/docs/ML1322/ML13224A106.pdf> Pages 2-14, 4-75

Failure to Address the Impacts of Climate Change

- A. The NRC has approved *on-site* storage casks that are not approved for *transportation* of SNF. In the event that sea-level or river-level rise threatens the cask site, the fuel would have to be re-casked immediately into approved-for-transportation casks. This would result in an unnecessary radiation exposure to workers, as well as added costs and delays. It is not clear how this transfer would be accomplished since fuel pools will be decommissioned with the reactors. Any additional handling of irradiated fuel increases the odds of an accident and release of radioactivity.
- B. The GEIS states that a one-meter water rise will not endanger any nuclear power plant, operational or decommissioned, in the U.S. This is simply false. Examples: A *less than 1m* water rise will completely flood Turkey Point, St. Lucie and Crystal River Nuclear power plants, just to name three near-coastal plants that would be affected by flooding. (Climate Central).
- C. GEIS on page 6-8, section 6.3.1, Table 6-1 summarizes the range of expected temperature rise by 2100 as falling between 1 degree C and 6.5 degrees C. But it fails to connect the dots between rising temperatures and the effects on water

sources depended on to cool reactors and their spent fuel pools. During the summer of 2012 high temperatures interfered with the operations of several nuclear plants. (source 2 below) Over time, the warming of bodies of water used for cooling will impact the reliability of nuclear plants and potentially the safety of operations.

- D. As climate change makes water scarcity an ever-increasing event, the water necessary to cool spent fuel in pools becomes an unaffordable luxury. Dry casking all spent fuel is the only alternative in a world where the water necessary to sustain life is at a premium.
- E. Experts report that while it is too soon to say that Climate Chaos is increasing the numbers of weather events, they do report that Climate Change is causing greater severity of them. Whether hurricanes, wind storms, tornadoes, ice storms or drought, NRC has not yet upgraded its computer simulations and accident probability calculations to reflect the greater possibility that the electric power grid will go down. Loss of off-site power is a major contributor to reactor accident scenarios, many of which would also include the fuel pool and its back-logged inventories of waste.

1. Surging seas interactive climate map, Climate Central, 2013.
<http://sealevel.climatecentral.org/surgingseas/place/cities/FL/Miami#show=cities¢er=12/25.3789/-80.3118&surge=2> or <http://sealevel.climatecentral.org/>
2. http://green.blogs.nytimes.com/2012/08/13/heat-shuts-down-a-coastal-reactor/?_r=0
3. Cooke, Kieran, "Worsening Water Scarcity to Affect 2 Billion Globally", [Climate News Network](#) September 21st, 2013. <http://www.climatecentral.org/news/worsening-water-scarcity-to-impact-2-billion-globally-16500>

{Thank you to Jane Swanson}

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